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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,564	01/25/2001	Franklyn H. Story	10205.028	4127

7590 06/02/2005

Paul F. Wille  
6407 East Clinton Street  
Scottsdale, AZ 85254

EXAMINER
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SINGH, RAMNANDAN P

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/769,564

Applicant(s)

STORY ET AL.

Examiner

Ramnandan Singh

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I: Claims 1-5, 16 are directed to a method for transferring data during telephone conversation, wherein delaying a portion of an audio signal produces a shadow signal, as shown in Fig. 1;

Species II: Claims 6-8 are directed to an apparatus for modulating an audio signal with data, as shown in Fig. 2;

Species III: Claims 9-12 are directed to a telephone including machine states representing modes of communication (not shown ); and

Species IV: Claims 13-15 are directed to an apparatus for detecting the presence of a shadow in an audio signal, as shown in Fig. 5.

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there is no generic claim.

3. Applicant's response filed on January 18, 2005 confirmed the election of Species I, represented by claims 1-5 and 16. As a result, claims 6-8, 9-12 and 13-15 are withdrawn by the Applicant. Hence this restriction requirement is made FINAL.

***Double Patenting***

4. ANALYSIS:

To demonstrate that the instant application S/N: 09/769,564 and U.S. patent No. 6,891,809 B1 are claiming common subject matter, a brief analysis is presented below:

(i) Claim 16 of the Instant Application: A method for transferring data within the voice band over a telephone line during a conversation, said method comprising the steps of:

delaying an audio signal less 50 milliseconds to produce a shadow signal; and  
combining the shadow signal with the audio signal.

(ii) Claim 1 of U.S. Patent No. 6,891,809 B1: A method for transferring <sup>data</sup> ~~data~~ within the voice band over a telephone line during a conversation, said method comprising the steps of:

delaying a voice signal less than fifty milliseconds to produce a shadow signal;  
and

combining the shadow signal with the voice signal ;

wherein the delay represents the data to be transferred.

(iii) Comparing claim 16 of the instant application with claim 1 of U.S. Patent No. 6,891,809 B1, it is obvious that the wording of claim 16 containing "an audio signal" is similar to the wording of claim 1 containing "a voice signal". Thus, claim 16 of the instant application and claim 1 of U.S. Patent No. 6,891,809 B1 claim a common invention.

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim 16 of the instant application is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U. S. Patent No. US 6,891,809 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of U. S. Patent No. US 6,891,809 B1 encompasses all the limitations of claim 16 of the instant application.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-5 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by McCalmont [US 4,195,202].

Regarding claim 1, McCalmont teaches a method for transferring data over a telephone line during a conversation, the method comprising the steps of:

dividing an audio signal into a plurality of bands;  
delaying the portion of the audio signal in at least one band by less than fifty milliseconds to produce a shadow (i.e. delay) signal; and  
combining the shadow signal with the portion of the audio signal; and combining the portions to produce a reconstructed audio signal;  
wherein the delay represents the data to be transferred [Figs. 1-5; col. 2, line 63 to col. 3, line 48; col. 4, line 60 to col. 6, line 36; Abstract].

Claim 16 is essentially similar to claim 1 and is rejected for the reasons stated above.

Regarding claim 2, McCalmont further teaches the method wherein the presence or absence of a shadow signal represents data, such as cadence [col. 3, lines 9-17; Abstract].

Regarding claim 3, McCalmont further teaches the method wherein at least two shadow signals are produced and the data is represented by two of the shadow signals [col. 7, lines 50-68].

Regarding claim 4, the limitation is shown above.

Regarding claim 5, McCalmont further teaches the method wherein the amount of delay of a portion in a band does not equal the period of a frequency within that band [col. 7, lines 59-65].

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Schmid et al [US 4,188,506] teach a method for speech transmission by dividing the speech band into at least sub-bands, for delaying the one sub-band with respect to another [ Whole document];

(ii) Yuguchi et al [US 4,149,039] teach a frequency band compression [Abstract; Fig. 4]; and

(iii) Ronald-Mieszkowski et al [WO 9400085] teach a method of a digital corrector for stuttering people [Whole document].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Sinh can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramnandan Singh  
Examiner  
Art Unit 2644



**SINH TRAN**  
**SUPERVISORY PATENT EXAMINER**